

[illegible]

Page 1

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Setup Start

Stop

Cust Item ID:

Required Date: 1/19/2011 **Req'd Qty:** 4.00



Customer:

Reference:

Process Plan:

Date: 10-12-17

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

[illegible]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 64811

Friday, December 17, 2010 7:59:53 AM



Page 2

Item ID: D3572-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Guide Assembly

Start Date: 12/16/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 1/19/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 Large Fab	Weld per dwg A/R Aluminum rod Batch: <u>M108436</u> Large Fab	0.00							
Large Fab	Memo 1-Weld D3572-3 guides and D3572-5 bracket as per Dwg D3572 2- grind weld flush at the end of tube only	0.00				<u>EL</u>	<u>11-7-10</u>		<u>(15)</u>
140 QC	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
Quality Control	Memo	0.00				<u>BE</u>		<u>(15)</u>	<u>11/01/11</u>
150 QC	QC5- Inspect part completeness to step on W/O	0.00							
Quality Control	Memo	0.00 <u>Sub 11</u>				<u>(15)</u>			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 64811

Friday, December 17, 2010 7:59:53 AM



Page 3

Item ID: D3572-041

Accept



Setup Start



Revision IP:

Item Name: Guide Assembly

Stop



Start Date: 12/16/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 1/19/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

Chemical Conversion Coat per QSI005 4.1

0.00

=> M

11/01/11

XS

0

HandFinish

Memo

0.00

Hand Finishing

190

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

M112588.

0.00

Powdercoat

Memo

Powder Coating

START TIME: 1:10
OVEN TEMPERATURE: 320°
FINISH TIME: 1:40

5 BL 11-01-11.

200

QC3- Inspect Part Finish

0.00

=> M

11/01/11

5

0

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 64811

Friday, December 17, 2010 7:59:53 AM



Page 4

Item ID: D3572-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Guide Assembly

Start Date: 12/16/2010 Start Qty: 4.00



Cust Item ID:

Required Date: 1/19/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210



Packaging

Identify as per dwg & Stock Location 260

0.00

Memo

0.00

Packaging

12/16/12 (5)

220



QC

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

Quality Control

11/01/12

mf

11-01-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, December 17, 2010 7:59:57 AM

Page 1

Work Order ID: 64811

Parent Item: D3572-041

Parent Item Name: Guide Assembly




Start Date: 12/15/2010

Required Date: 1/19/2011

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 07-02-07 JLM
 IPP rev B revB dwg EC
 IPP Rev:C Removed D3572-7 Cap 07-06-11 JLM
 IPP Rev:D 08-05-27 Review process of IPP DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6T1.000W.188 		Purchased	No			110	f	53.5164	2.34	9.852632			
6061T6 RD TUBE 1.00 X .188W													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				MAT				36.24126					
				115868				36.24126					
				MAT016				17.275108					
				114089				17.275108					
D3572-3 		Manufactured	No			130	Each	7.0000	4	16			
Guide													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST244				7					
				62215				7					
D3572-5 		Manufactured	No			130	Each	11.0000	1	4			
Bracket													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST072				6					
				59405				6					
				WA				5					
				54119				5					

EL 10-12-22

12

EL 10-12-22

7

EL 10-12-22

56

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ITEM No.	QTY -041	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
1	X			D3572-041	GUIDE ASSEMBLY
2		X		D3572-043	GUIDE ASSEMBLY (UH-1)
3			X	D3572-044	GUIDE ASSEMBLY (UH-1) (OPP)
11	1	1	1	D3572-1	TUBE
12	4	4	4	D3572-3	GUIDE
13	1	3	3	D3572-5	BRACKET
14	-	-	-	D3572-7	DELETED AT REV C

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 04811
2/10/12-17

RELEASED
09-04-28/17

D3572-041 GUIDE ASSEMBLY

D3572-043 GUIDE ASSEMBLY (UH-1)

D3572-044 GUIDE ASSEMBLY (UH-1)

NOTES:

- 1) MATERIAL: NONE
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3572-XXX" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT -041: 1.34 lbs
-043/-044: 1.42 lbs
- 8) WELDING: PER DART QSI 004

D	REDRAWN IN "B" SIZE FORMAT TO CURRENT STANDARDS. ADD -043, -044 FOR UH-1. SEE PAR 09-017.	AJS	09.04.17
C	REMOVE D3572-7	LE	07.06.01
B	FOR D3573-3 0.03 CHMF WAS 0.06; ADD TYP TO FILLET	LE	07.04.20
A	NEW ISSUE	LE	07.03.29
REV.	DESCRIPTION	BY	DATE
DESIGN	LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<u>AJS</u>	DRAWING NO.	REV. D
MFG. APPR.	<u>LE</u>	D3572	SHEET 1 OF 4
APPROVED	<u>LE</u>	TITLE	SCALE
DE APPR.	<u>LE</u>	GUIDE ASSEMBLY	NTS
DATE	09.04.17	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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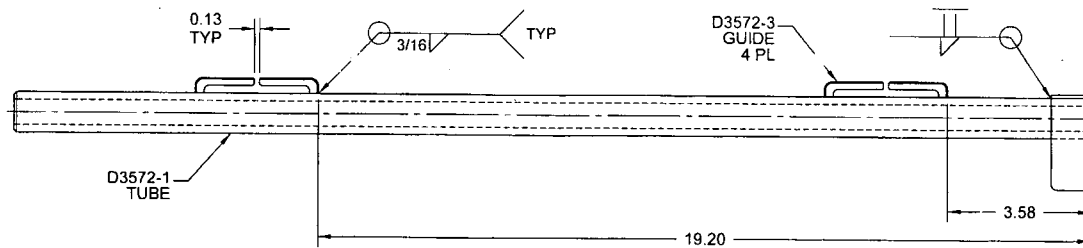
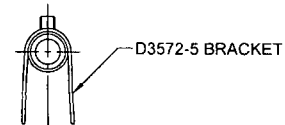
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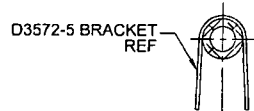
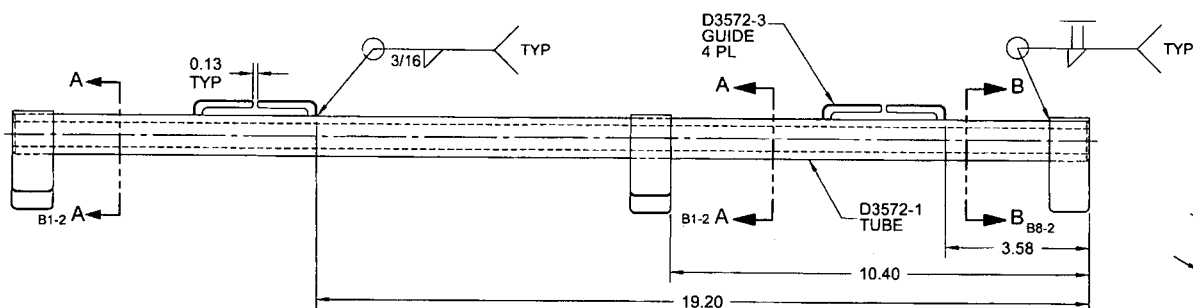
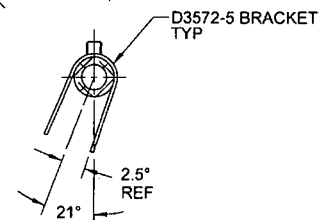
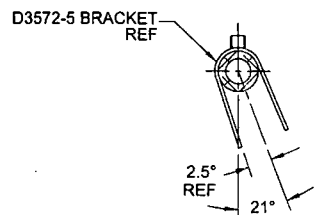
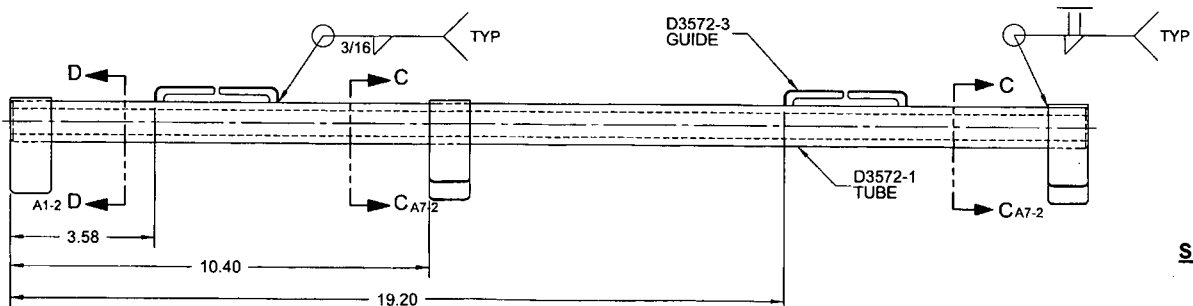
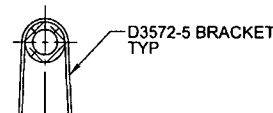
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**D3572-041 GUIDE ASSEMBLY**

D3572-5 BRACKET

**SECTION B-B** C2-2**D3572-043 GUIDE ASSEMBLY****SECTION A-A** C7-2
(2 PL) C4-2**SECTION C-C** A2-2
A6-2**D3572-044 GUIDE ASSEMBLY****SECTION D-D** A7-2**RELEASED**
09.04.17

DESIGN	LE	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	J	DRAWING NO.	REV. D
MFG. APPR.	B	D3572	SHEET 2 OF 4
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DE APPR.	H	GUIDE ASSEMBLY	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

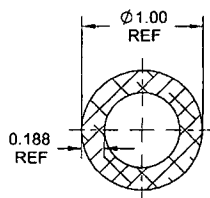
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

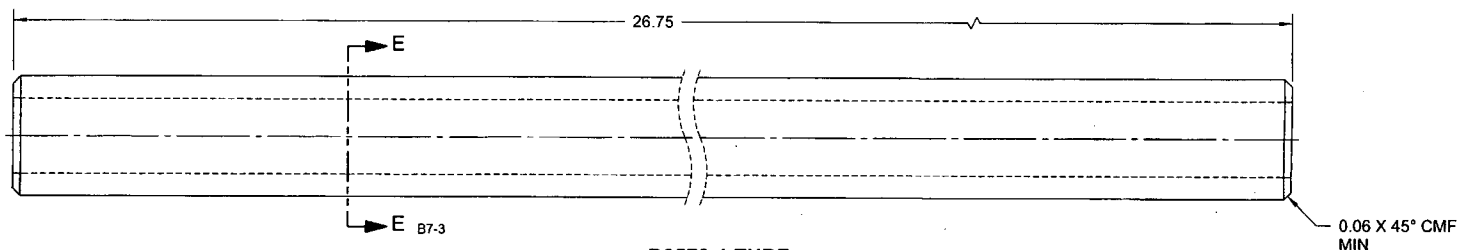
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

w/lo 64 811



SECTION E-E C5-3



D3572-1 TUBE

RELEASED
09/04/17

D3572-1 NOTES:

- 1) MATERIAL: 6061-T6 (T62) ALUMINUM TUBE 1.00 OD X 0.188 WALL
PER WW-T-700/6 OR AMS 4080 OR AMS 4082 OR AMS-QQ-A-200/8 OR AMS-QQ-A-225/8
REF DART SPEC M6061T61.000W.188
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.25 lbs

DESIGN	LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	A/S		
CHECKED	J	DRAWING NO.	REV. D
MFG. APPR.	C	D3572	SHEET 3 OF 4
APPROVED	H	TITLE	SCALE
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DATE	09.04.17	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

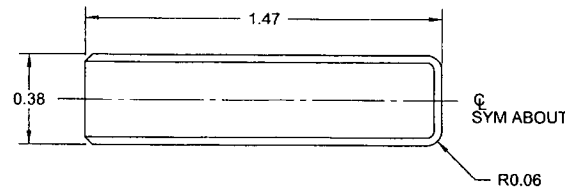
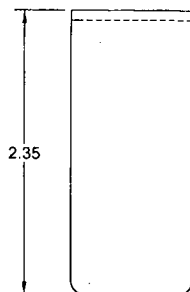
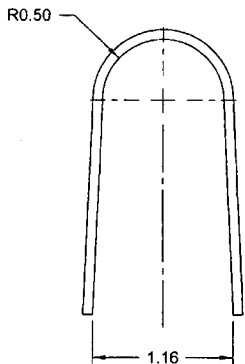
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

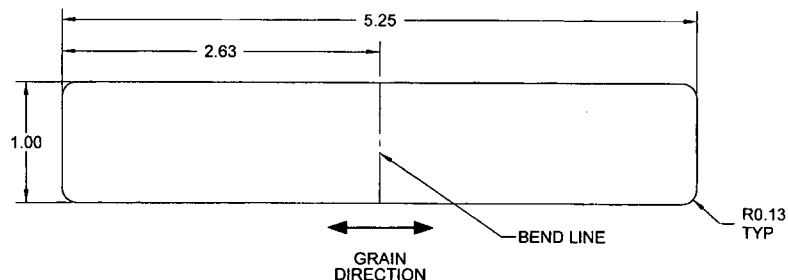
NOTE: Date & initial all entries

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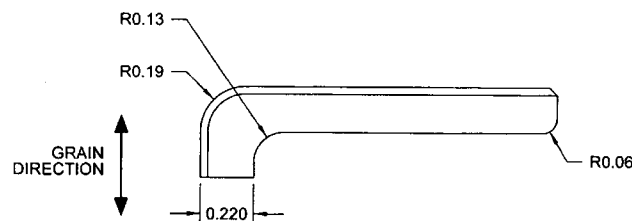


W660811

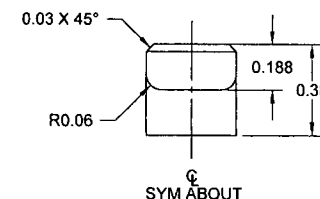
D3572-5 BRACKET
(MAKE FROM D3572-5F)



D3572-5F FLAT PATTERN



D3572-3 GUIDE



RELEASED
9/04/17

D3572-3 NOTES:

- 1) MATERIAL: 6061-T6 (OR T651/T6510/T651/T62) ALUMINUM BAR
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR
AMS-QQ-A-200/8 (OR AMS4160)
REF DART SPEC M6061T6B
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.01 lbs

D3572-5 NOTES:

- 1) MATERIAL: 6061-T6 (OR T62) ALUMINUM SHEET 0.080 THICK
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
REF DART SPEC M60601T6S.080
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.04 lbs

DESIGN	LE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	J	DRAWING NO.	REV. D
MFG. APPR.	J	D3572	SHEET 4 OF 4
APPROVED	J	TITLE	SCALE
DE APPR.	J	GUIDE ASSEMBLY	NTS
DATE	09.04.17	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries